

Informal Economy: An Analytical Approach to Concepts and Measurement Methods

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Received: 08/02/2025

Accepted: 22/09/2025

Published: 30/10/2025

Abstract:

This research delves into the complex world of the informal economy, providing a comprehensive analysis of its conceptualization and measurement. Through a thorough review of existing literature and a detailed examination of various estimation methods, the study aims to shed light on the pervasive nature of the informal economy and the challenges involved in accurately quantifying its size. The findings underscore the significant role the informal economy plays in the economic landscape of many nations. The research also reveals the limitations of various measurement approaches. Direct methods, such as surveys, can provide valuable micro-level data but may be influenced by respondent bias and underreporting. Indirect methods, which rely on readily available macroeconomic indicators like national statistics and electricity consumption, can offer broader estimates but often lack precision. Advanced econometric models, such as the MIMIC model, offer the potential for more accurate and nuanced estimations, but they require substantial statistical resources and sophisticated analytical techniques.

Keywords: *informal economy, formal economy, measurement methods , MIMIC model,*

Jel Classification Codes : *O17 ; E26*

1. Introduction :

The informal economy is considered one of the vital economic phenomena that pose significant challenges in economic policies and official statistics. It is an integral part of the economic fabric, encompassing a wide range of diverse activities conducted outside the legal and regulatory framework. These activities range from unlicensed trade and unregulated employment to unregistered small businesses. This economy grows due to several factors, including high unemployment rates, difficulties in obtaining licenses, low wages in the formal sector, and inadequate social protection.

This sector constitutes an important aspect of the national economy's formation, as it contributes to providing job opportunities and alleviating unemployment. However, it hinders the achievement of tax justice and limits the transparency of data.

The informal economy is a complex and multifaceted phenomenon that affects various aspects of economic and social life worldwide, to varying degrees. This economy is characterized by ambiguity and lack of transparency, making it difficult to accurately define and measure. Nevertheless, its active role in economic activity cannot be denied, as it contributes to providing job opportunities and meeting the needs of vulnerable groups, particularly in developing countries.

1.1.Main Question: This study attempts to provide an accurate answer to the following question:

What is the nature of the informal economy? What are the most prominent concepts related to it? How can its size and impact on the national economy be measured? What are the challenges and opportunities presented by this economy?

1.2.Study Hypotheses:

- Definitions of the informal economy vary due to its complex and changing nature. These definitions differ depending on economic and social perspectives.
- There are various methods for measuring the informal economy, but they differ in accuracy and comprehensiveness, depending on the available data and methodologies used.
- The informal economy has positive and negative effects on the national economy. This depends on the nature and size of informal activities, as well as the government policies adopted.

1.3.Importance of the Study:

The importance of this research lies in shedding light on the phenomenon of the informal economy, which continues to pose a major challenge to both developing and developed economies. The research aims to gain a deeper understanding of the nature of this economy, identify the most prominent concepts related to it, review various measurement methods, analyze economic and social impacts, and provide recommendations for dealing with it.

1.4.Study Objectives:

- Define the basic concepts related to the informal economy and provide a comprehensive and clear definition of this phenomenon.

- Analyze the economic and social impacts of the informal economy, including its impact on economic growth, employment, distribution, and poverty.

2. Definition of the Informal Economy

The informal economy has been defined in various ways by international organizations concerned with global economic affairs, as well as by specialized economists. These definitions reflect differing perspectives, as each party views the informal economy from a standpoint that aligns with its interests and field of study.

According to the International Labour Organization (ILO): "The informal economy includes all economic activities carried out by workers or enterprises that are not covered by legal and regulatory arrangements, either in terms of legislation or practical enforcement." (Rachid & Mohamed , 2017, p 9)

This definition focuses on the absence of legal coverage as a key criterion for identifying the informal economy. However, it does not clarify the extent of this absence and does not address issues such as tax compliance or regulatory oversight, making it general but not sufficiently precise.

The ILO further defines it as: "It includes all economic activities carried out by workers or economic units that are partially or entirely excluded from legal and regulatory arrangements, either due to operating outside the law or because the law fails to be enforced to protect them." (Rachid & Mohamed , 2017 , p9)

This definition provides a more detailed perspective, noting that some units may be legally covered but do not benefit from protection due to a lack of enforcement. However, the phrase "due to lack of law enforcement" may be too narrow compared to other factors such as lack of administrative registration or tax compliance.

The International Monetary Fund (IMF) defines the informal economy as: "The informal economy, also known as the shadow, hidden, or parallel economy, encompasses more than just illicit activities. It also captures unreported income derived from the production of legitimate goods and services. This income, whether generated through cash transactions or bartering, would be subject to taxation if disclosed to the relevant tax authorities.." (Hamouda, 2012, p12)

This definition highlights the tax-related aspect of the informal economy as one of its dimensions. However, it does not mention other operational and regulatory aspects, such as the lack of registration of small enterprises or non-compliance with labor laws. Additionally, it conflates the informal economy with the untaxed economy, despite the overlap between the two.

The informal economy is often defined as all economic activity by workers or economic units not adequately covered by legal and regulatory frameworks, whether formally or in practice. This sector tends to flourish in environments characterized by high unemployment, economic instability, and inequality, and includes unregistered economic activities with market value.." (Corinne & Leandro , 2020, p55)

This definition is more comprehensive, as it does not focus solely on legal absence but links it to the economic and social context that contributes to the expansion of the informal economy. However, it does not clarify the distinction between activities that fall entirely outside legal coverage and those that are partially covered or avoid registration for specific reasons.

Another definition states: "The informal economy includes all economic activities carried out by workers or economic units that are not fully or adequately covered by legal and regulatory arrangements. This definition includes activities within the informal sector, that is, those carried out by unregistered enterprises, as well as some unregistered activities within the formal sector." (Al-Jilani, & Mohamed, 2019, p84)

This definition is precise in distinguishing between the informal economy and unregistered activities within the formal economy, but it does not address the social and economic aspects that affect its spread.

It is also defined as: "The informal economy comprises all small, independent economic activities carried out by wage and non-wage workers, typically characterized by low levels of organization and technology. These activities primarily aim to provide employment and income without receiving official recognition from authorities, making them exempt from administrative and tax oversight." (Mariam & Manal, 2020, p89)

This definition emphasizes the institutional and organizational dimension, providing a clear framework for key characteristics such as small scale and limited technology. However, it may be narrow, as it does not include all forms of the informal economy, such as certain sectors that operate with higher levels of organization but do not fully comply with the laws.

By discussing the above definitions, we can formulate a comprehensive definition of the informal economy that incorporates legal, economic, and regulatory dimensions. It also clarifies the distinction between unregistered legal activities and unauthorized activities. Additionally, it takes into account the economic contexts that foster the spread of the informal economy.

Thus, we can say that: **"The informal economy is the sum of economic activities carried out by workers or economic units that are not fully or partially subject to legal and regulatory arrangements, whether in terms of registration, tax compliance, or social protection. This economy includes legal activities that are not officially registered, as well as activities that occur outside the regulatory framework due to weak law enforcement or inadequate legislation. It is typically characterized by low levels of organization and technology, and it thrives in economic contexts marked by high unemployment, instability, and precarious work. It encompasses various sectors, ranging from informal markets to unregulated services and unregistered small businesses."**

The informal economy has several names that reflect its different dimensions. Some of these terms focus on the legal and regulatory aspects, while others emphasize its economic and social impact. Among these terms, we find:

- **Shadow Economy:** Describes economic activities that occur "in the shadow," meaning outside the scope of government and regulatory oversight, making them invisible to the official authorities. (Schneider & Enste, 2000, p11)
- **Hidden Economy:** Refers to economic activities intentionally concealed from authorities for tax or regulatory reasons, which makes them unregistered or unreported. (Feige, 1990, p9)
- **Unstructured Economy:** Reflects the nature of economic activities that lack formal organizational structures, often relying on unregulated and temporary labor. (ILO, 1972)
- **Parallel Economy:** Describes economic activities that run parallel to the formal economy but do not adhere to the same rules and regulations. (Tanzi, 1999, p13)
- **Unregulated Economy:** Refers to economic sectors that do not fall under formal regulation or do not comply with government standards regarding operations and taxation. (Portes & Haller, 2005, p 15)
- **Unreported Economy:** Represents economic activities that are not reported to the relevant authorities, particularly for the purpose of tax evasion or avoiding legal obligations. (OECD, 2002, p7)
- **Black Economy:** Called the "black economy" due to the secrecy of these activities, which are difficult to track, and their illegal nature, making them hidden from official economic systems. (Schneider & Enste, 2000, p12)

3. The Emergence and Causes of the Informal Economy

3.1. A Historical Overview of the Emergence of the Informal Economy

The concept of the informal economy emerged in the early 1970s in Africa, thanks to the work of researcher Keith Hart. In a 1971 paper presented at a conference on urban unemployment, Hart argued that the urban poor were not typically unemployed but rather engaged in irregular, low-income activities characterized by a lack of legal wage regulation and administrative oversight..

In 1973, he published another article in the *Journal of Modern African Studies* at the University of Cambridge, titled "*Informal Income Opportunities and Urban Employment in Ghana.*" This study offered new hope to international agencies struggling to promote development in the Global South, as it highlighted the significance of income-generating activities that support the poor without posing a threat to the wealthy. The research revealed that development policies had largely failed to reach the poorest segments of society, necessitating the identification of the informal sector as a target group

for transformative changes. These changes aimed at improving employment opportunities, enhancing production, and fostering equity through fair resource distribution (Mohammed , 2020, p99-100).

The **International Labour Organization (ILO)** was the first to clarify the term "**informality**" in its 1972 report on income and employment in Kenya. The report highlighted the existence of a marginal, unregulated sector within the urban economy that produces goods, provides jobs, and generates income for the poor. Since then, this sector has been referred to as the "**informal sector**" or "**unregulated sector,**" which operates independently rather than being entirely separate from the formal economy. It has been primarily defined in contrast to the formal sector based on distinguishing characteristics.

Policymakers' interest in the informal economy grew significantly after the publication of an article in the *Financial Analyst* newspaper in 1977, which discussed the rising attention of American media on the subject during the 1970s. This surge of interest was largely driven by **Gutmann's** efforts to measure the size of the informal economy, ultimately sparking both political and academic debates. At that time, the informal economy in the **United States** was estimated to constitute **around 10% of the Gross National Product (GNP)**. Following this, studies on the phenomenon expanded globally, leading to widespread research and discussion on the topic. (Mohammed , 2020, p100)

3.2 Factors Behind the Emergence of the Informal Economy

The expansion of the informal economy is a complex phenomenon driven by a variety of interconnected factors. Some of the most prominent reasons are outlined below: (Mohammed , 2020, p 95-114):

- **High Tax Levels:**

The rise in taxes is considered one of the main factors encouraging individuals (both natural and legal) to enter the informal economy, as these individuals seek to generate additional income through tax evasion.

- **High Unemployment Rates and Labor Market Instability:**

Informal activities serve as a refuge for many unemployed individuals. The mismatch between labor market needs and educational outputs exacerbates this phenomenon. As a result, many people turn to informal jobs, despite the lack of required skills and the absence of regulatory oversight.

- **Governmental and Administrative Restrictions:**

The imposition of numerous restrictions on economic activities drives individuals and institutions to resort to circumvention and engage in informal activities.

- **Low Income Levels:**

Low income, coupled with the continuous rise in prices and inflation, is one of the primary reasons that push individuals to engage in the informal economy in search of additional income sources.

- **Increase in Micro and Individual Enterprises:**

Small and individual enterprises tend to resort to informal financing sources, such as family, friends, or moneylenders, rather than turning to official financial institutions. This allows them to meet their financial needs quickly and without the requirement for guarantees or waiting for free aid, contributing to the growth of the informal economy.

- **High Contributions to Social Security, Insurance, and Pension Schemes:**

These contributions are one of the reasons that drive individuals to evade paying such funds by seeking jobs in the informal economy.

3.3. Stages of the Development of the Informal Economy:

The development of the informal economy can be characterized by several phases, summarized as follows:

3.3.1. The Founding and Early Theorization Stage of the Informal Economy: (Ranging from the Late 1960s to the Early 1980s): A historical perspective reveals that the informal economy's origins lie far earlier than the establishment of state-controlled economic systems, predating even the first efforts to formally regulate exchange.. (Nawar, 2005, p2), In this context, Sédillot, in his book on the history of black markets published in 1985, pointed out that the emergence of tax evasion in ancient China dates back to 10,000 BCE. Since that period, the concept of the informal economy, as we know it today, began to take shape and evolve, representing the phenomenon that summarizes individuals' natural reactions to the restrictions and laws imposed by the state on market exchanges. Despite individuals having the ability to organize their activities in the formal market, they turned to the informal market to avoid the restrictions and regulations imposed on their activities. (Forlin, 2002, p1).

As for the emergence of the informal economy as an economic term, the theorization phase began in the late 1960s and early 1970s, when this term started circulating in global discussions by the International Labour Organization. This coincided with the **1969 World Employment Conference** and the sending of missions to Kenya, Sri Lanka, and Colombia. When the facts related to informal labor, such as "basic needs of individuals" and "achieving decentralized development," were examined, the concept of informality in the economy was established at the **1972 Kenya Conference**. The formal activity was defined based on characteristics such as: ease of entry and engagement in any activity, family ownership of the activity, limited scope of work, reliance on labor intensity rather than technology, and unorganized work, among other traits.

3.3.2. The Expansion and Growth Stage of the Informal Economy: During this stage, the informal economy witnessed significant development compared to the previous stage, with its growth rates notably surpassing those recorded in the formal economy, especially in developing countries. According to studies conducted by the International Monetary Fund (IMF), the growth rates of the informal economy increased annually, with its contribution to GDP ranging from 35% to 44% between 1988 and 2000, while in emerging economies it ranged between 21% and 30%. In the Organisation for Economic Co-operation and Development (OECD) countries, its contribution ranged between 14% and 16%.

Some studies also showed that the size of the informal economy was high in countries such as Nigeria, Thailand, Bolivia, Russia, Yugoslavia, Greece, Italy, Scandinavian countries, and Chile, while it was lower in countries like Switzerland, Uzbekistan, Austria, the United States, Slovakia, South Africa, Hong Kong, and Singapore. (Tamer, 2005)

The growth of this type of economy can be attributed to a set of factors, which can be summarized as follows:

- **Decline in Purchasing Power:**

The sustained increase in prices, resulting in lower real incomes, compels individuals to seek opportunities in the informal economy to preserve or enhance their quality of life

- **High Taxes and Social Security Contributions:**

High taxes and social security contributions drive up labor costs in the formal economy, incentivizing both businesses and workers to move into the informal sector. This shift is a cost-benefit calculation, weighing potential informal market earnings against the risks of tax evasion. The specific drivers vary: high income taxes in the US, high VAT rates in Europe, and high trade duties in developing countries.. (Schneider & Enste, 2002, p5)

- **Government and Administrative Restrictions:**

The expansion of government restrictions and regulations such as licensing requirements, labor market laws, and trade barriers increases the cost of labor in the formal economy. To alleviate this burden, businesses resort to operating in the informal economy, exploiting loopholes to create hidden activities aimed at generating extraordinary profits.

- **Corruption and Inefficiency in Tax System Enforcement:**

Inefficiency and discretionary use of power in applying tax laws and regulations contribute to the growth of corruption in economies. Studies have shown that the size of the informal economy is significantly higher in countries suffering from widespread corruption. (Ali, 2009,p6-7)

- **Scarcity of Goods and High Demand:**

The scarcity of consumer and capital goods, combined with increasing demand, leads to price hikes, further promoting the growth of the informal economy by offering counterfeit and imitation products in unregulated markets at lower prices. The European Anti-Fraud Campaign revealed that the size of counterfeit products in global trade ranges from 5% to 9% of total trade, amounting to 1.25 trillion riyals. (Schneider & Enste, 2002, 5)

International financial institutions, particularly the World Bank, have played a significant role in expanding this phenomenon after shifting their view on this type of economy, encouraging its existence as a mechanism to combat poverty and unemployment from 1982 until the late 1990s. This

shift resulted from structural adjustment programs imposed by the IMF on developing countries to transition to a capitalist system by reducing the state's role in economic activities. As a result, many public institutions were closed, large numbers of workers were laid off, unemployment rates increased, poverty spread, and illegal immigration rates soared. In this context, the informal economy became the only way to cope with these phenomena. (Ali, 2009, p8).

3.3.3. The Stage of Dealing with the Informal Economy and Attempting to Integrate It: During this stage, characterized by the World Bank's encouragement of the informal economy as a solution to address unemployment and poverty, this type of economy experienced rapid growth, especially in developing countries. Between 1990 and 1998, the share of the informal economy in former Soviet Union countries increased from about a quarter to more than a third. In Central and Eastern European countries, the informal economy accounted for about one-fifth of GDP. The Organization for Economic Co-operation and Development (OECD) countries experienced the fastest growth, with its share rising from 12% between 1990 and 1993 to 17% between 1999 and 2000. By the year 2000, this type of economy had doubled in countries such as Belgium, Denmark, Italy, Norway, Spain, and Sweden, reaching between 10% and 20% of GDP from 1970 to 2000. (Schneider & Enste, 2002, p12).

As for developing countries, the share of the informal economy in GDP ranged between 30% and 70%. For example, in Jordan and Syria, it accounted for 20% and 40%, respectively (Al-Jini, 2009), while in Algeria it ranged between 20% and 30%, and around 60% in Nigeria and Tanzania. Amid this rapid growth of the informal economy, changes occurred in key macroeconomic indicators, the most notable of which were: (Schneider & Enste, 2002, p12-13)

- Increased demand for cash as most economic transactions in this sector are conducted in cash.
- Reduced working hours and participation rates in informal economic activities.
- Suppressed growth of GDP due to individuals and companies evading taxes, negatively affecting public revenues and government expenditures.
- Weak credibility of available data on economic activities, including macroeconomic indicators.

In response to these challenges, many governments adopted strategies to integrate and regulate the informal economy within the formal economic system through clear policies, including: (Chouri, 2010, p 15)

- Redesigning laws and regulations to make them more just and realistic, simplifying them to be understood by all economic units.
- Reducing tax rates to eliminate tax evasion, especially as integrating the informal economy with the formal one will increase the number of tax payers, thereby enhancing public revenues.

- Simplifying administrative procedures, particularly for small businesses and family-owned companies, by providing government consultations to solve their problems.
- Improving wages and salaries in the formal sector.
- Ensuring social justice in the market system by considering social dimensions alongside economic efficiency.
- Enforcing laws and regulations transparently for everyone, enhancing trust between the state and citizens and reducing individuals' reliance on informal services.

Despite the relative decline in its size, the informal economy still accounts for about one-third of economic activity in low- and middle-income countries. (Delecha & Medina, 2020, p55) This growth is linked to political and social instability in these countries, which fuels the continued spread of this phenomenon.

4. The Difference Between the Informal Economy and the Formal Economy:

The formal and informal economies are closely linked, often operating in tandem and exhibiting both competitive and complementary relationships.

This creates a complex, intertwined structure that is difficult to disentangle. The informal economy's activities and markets develop alongside the formal economy, with some informal transactions occurring within the formal framework. This complex interplay also generates feedback loops, where the informal economy interacts with the formal economy to achieve its goals. (Zidan, 2022, p20-21)

The differences between the informal and formal economies can be identified based on a set of characteristics, as illustrated in the following table.

Table (1) : Table title; The differences between the informal economy and the parallel economy.

Characteristics	Formal Economy	Informal Economy
Legality of Activity	Legal	Legal / Illegal / Illicit
Barriers to Entry	High	Low
Efficiency of Regulation	Organized	Unorganized
Technology	Capital Intensive	Labor Intensive
Level of Compliance	Complies with regulations and laws	Circumvents regulations and evades restrictions
Management	Bureaucratic	Family-based or friendship-based
Capital	Abundant	Scarce and limited
Working Hours	Regular and fixed	Irregular and long
Inventory	Large	Small

Prices	Fixed mostly	Negotiable and flexible
Financial Services	Mostly through banks	Personal and self-financing sources
Fixed Costs	High	Low
Advertising	Necessary	Unnecessary
Labor Rights	Protected by law	Dependent on work relations
Productivity	High	Low
Size of the Establishment and Workforce	Large mostly	Small
Absorption Capacity	Limited by its capabilities and plans	Absorbs the unemployed workforce

The source ; (Mohamed Reda, 2022, p249)

Table No. (01) highlights the key differences between formal and informal economy enterprises through a set of characteristics, such as the legality of the activity, entry barriers, organizational efficiency, technology used, and others. The data reveals a significant difference between the two sectors, most notably in the nature of organization. As for funding sources, formal economy enterprises rely on banks, while their informal counterparts depend on self/personal financing. Working hours also differ between the two, with fixed hours in the formal economy versus flexible and unrestricted hours in the informal economy.

The links between the formal and informal sectors are diverse, making the independence of the latter impossible for several reasons, including: (Houria, 2014, p24-25)

- **Resource Dependence:** The informal sector relies on the formal sector for supplies and skilled labor, often driven by lower labor costs.
- **Market Integration:** Informal sector products are often sold within formal markets, alongside formally produced goods.
- **Pricing and Branding:** The informal sector often adopts formal sector pricing models (at lower prices) and imitates established brands.
- **Parasitic Characterization:** The informal sector is sometimes described as parasitic, draining resources from the formal economy.

5. Characteristics of the Informal Economy:

The informal sector is characterized by a set of features that distinguish it from the formal sector, the most prominent of which are:

- **Lack of Institutional Organization:** This sector is devoid of official regulations and systems governing aspects such as labor organization, production and distribution methods, or marketing mechanisms applied in the formal sector.
- **Flexibility in Procedures:** Due to its lack of adherence to formal laws, the informal sector enjoys high flexibility in several areas, such as: (Houria, 2014, p24-25)
 - **Flexible Working Hours and Holidays:** These are determined according to the nature of the activity and work conditions, often relying on informal labor relations based on family or social ties.
 - **Flexible Wage System:** Wages are based on the type of economic activity and the minimum wage value in the formal sector.
 - **Flexible Market Mechanisms:** These depend on personal and family relationships in marketing and production, leading to unorganized competition due to the absence of official regulations.
- **Limited Dependence on Capital and Technology:** It primarily relies on labor-intensive work and human effort, utilizing simple technology based on local resources, often requiring minimal energy consumption.
- **Small Enterprise Size:** Small enterprises dominate this sector, with most businesses employing fewer than ten individuals, and some activities are carried out by individuals without a formal establishment (e.g., street vendors).
- **Low Skill Requirements:** Most activities in this sector do not require high educational levels. Workers acquire the necessary skills through on-the-job training, with the ability to easily exchange roles.
- **Age Diversity:** The workforce includes individuals who may be excluded from the formal sector, such as the elderly, children, and women in certain contexts.
- **Ease of Entry and Exit from the Market:** Engaging in informal activities (productive or professional) does not require complex procedures, allowing various groups to enter without barriers.

- **No Tax Obligations:** This sector is free from any obligations to the state, such as taxes or government fees.
- **Focus on the Local Market:** Most of its products are directed toward local consumption, using local raw materials without adherence to official quality or inspection standards.
- **Lack of Legal Protection:** Its establishments do not have legal guarantees or adherence to occupational health and safety standards, as they are not officially registered.

These characteristics of the informal economy have widespread implications for the economy, individuals, and society. While it provides employment opportunities for those excluded from the formal sector, it also contributes to economic and social imbalances. Economically, although it seems to reduce unemployment, its sustainability relies on unstable and unregulated activities, making it unsustainable in the long run. Additionally, low productivity due to limited capital and simple technology results in poor product and service quality, reducing its ability to compete in organized markets. Furthermore, the lack of tax obligations leads to significant losses in government revenue, diminishing its ability to fund services and infrastructure. The unregulated competition between informal and formal enterprises causes market imbalances, with informal businesses benefiting from the absence of legal costs, while registered businesses bear substantial tax and administrative burdens.

For individuals, workers in this sector often face unstable working conditions, lacking legal or social protection, making them vulnerable to exploitation and economic fluctuations. Due to the absence of formal contracts, the risk of arbitrary dismissal is high, and the lack of social insurance and pensions leaves their future uncertain, increasing their economic vulnerability. Moreover, because the sector has low skill requirements, it becomes a refuge for vulnerable groups, such as women, the elderly, and children, who may be forced to work in harsh conditions for low wages, perpetuating the cycle of poverty and limiting their chances of improving their living standards.

On a societal level, the spread of the informal sector negatively impacts development, as most of its activities lack quality standards and oversight, exposing consumers to risks related to product and service safety. The absence of environmental regulations often leads to polluting practices, such as the indiscriminate disposal of waste or the use of harmful materials, worsening environmental degradation. Additionally, this sector weakens economic governance, as informal transactions lead to a lack of transparency and difficulty tracking business activities, opening the door for a shadow economy and illegal activities.

To address these challenges, policies aimed at integrating the informal sector into the formal economy are necessary. This can be achieved by simplifying legal procedures to encourage workers to register officially, alongside offering financial and tax incentives to promote this shift. Strengthening vocational training programs can help improve workers' skills, increasing their chances of transitioning to more stable jobs. Moreover, developing flexible social protection mechanisms that suit the nature of this sector could be an important step towards improving

workers' conditions and reducing social vulnerability. Achieving a balance between supporting the informal sector and integrating it into the formal economy is key to building a more just and sustainable economy, allowing its potential to contribute to growth without harming economic and social development.

6. Manifestations and Forms of the Informal Economy

The informal economy in developing countries is a broad and diverse system of economic activities conducted outside the framework of official regulations and laws. It encompasses areas such as production, trade, and services, making it difficult to define its boundaries precisely. According to the criteria adopted by the United Nations, it can be classified based on a set of indicators, the most prominent of which are the level of activity disclosure, its legitimacy, and legality. (Karim & Jawhar, 2005, p8);

6.1. Classification of the Informal Economy Based on the Level of Activity Disclosure

Economic activities in this sector can be classified based on the extent to which they are registered or licensed. There are fully undisclosed activities, which are those not registered or reported to the relevant authorities such as tax authorities or social security. For example, when a person sells goods or provides services without registering their activity with the authorities, it is considered part of the informal economy. This type of activity thrives in environments with weak oversight, making it difficult to determine its size and its actual impact on the national economy. In contrast, there are partially disclosed activities, where some parts are registered, such as declaring a portion of the income or some jobs, while other parts are concealed to avoid taxes or reduce social burdens. For instance, some small businesses may report part of their official income while keeping cash transactions off the record, which reduces their tax and social obligations.

6.2. Classification of the Informal Economy Based on the Legitimacy of Activity

In this context, a distinction can be made between illegal and legal activities. Illegal activities include those that violate laws, such as selling stolen goods, drug trafficking, or engaging in smuggling and gambling, whether through direct cash transactions or illegal barter systems. These activities undermine the rule of law and increase poverty and crime rates in society. On the other hand, legal activities are those that take place within a legal framework but involve practices like tax evasion or avoiding financial obligations. For example, a person may be involved in trade or providing services but submit inaccurate financial statements to reduce the amount of taxes they pay, which harms the national economy by depriving the state of financial resources used for infrastructure development and public services.

6.3. Classification of the Informal Economy Based on the Legality of Activity

This classification is linked to the extent to which activities comply with local and international laws. There are informal establishments that do not adhere to regulatory requirements such as obtaining licenses, respecting labor laws, or providing safety standards. These are often small businesses managed by individuals or families without legal compliance. For example, small workshops may provide services or products without official permits or adherence to health and environmental standards. This classification also includes illegal production, which involves the manufacturing of goods or services that do not meet quality and safety standards, such as the production of counterfeit or substandard products and selling them at lower prices in local markets. This can expose consumers to risks and negatively impact the efficiency of the formal market. Additionally, there is the illegal worker, who operates outside legal frameworks without enjoying social protection rights such as health insurance or fair wages, leading to a deterioration in their living conditions and an unstable professional status.

6.4. Key Activities Practiced Within the Informal Economy

The activities within this sector vary based on the social and economic conditions of the region. They include diverse services such as domestic labor (household workers, gardeners), which are often performed by low-income groups without official contracts. These activities also include maintenance services such as plumbing and electricity, which do not always meet the required quality standards. Additionally, small-scale production activities are widespread, relying on low capital, such as manufacturing second-hand clothing or repairing household appliances. Small-scale trade is also a prominent activity, including street vending, such as street vendors or small shop owners who do not have business registrations. Informal transportation is another key activity in this sector, where services like hand carts and unlicensed taxis offer lower prices than formal transportation services, making them a primary means of transport for low-income groups.

The spread of these activities leads to the creation of a parallel economy that boosts employment opportunities but exposes workers and consumers to various risks. It also impacts the formal economy by causing the loss of tax revenue and weak control over the quality of products and services offered. Therefore, the biggest challenge lies in gradually integrating this sector into the formal economy without harming the groups that depend on it for their livelihoods.

7. Impacts and Repercussions of the Informal Economy:

The spread of the informal economy leads to many repercussions, ranging from some temporary benefits to deep negatives that affect the structure of the economy and society. These effects can be classified as follows: (Abdel-Maksoud, 2013, p 32-36)

7.1. Positive Effects:

- **Job Creation:** It helps absorb large numbers of unemployed individuals, especially in countries suffering from high unemployment rates and weak opportunities in the formal sector.
- **Achieving Self-Sufficiency:** It aids in meeting local market needs by providing goods and services at low prices, making it an alternative solution for low-income classes.
- **Improvement of Individual Income:** It provides an additional income source for many families, reducing economic pressures, especially with low wages in formal jobs.
- **Encouragement of Entrepreneurship:** It allows individuals to start small businesses without administrative or bureaucratic complications, encouraging innovation and self-employment.
- **Labor Market Flexibility:** It allows individuals to work with flexible hours without adhering to the strict regulations of formal jobs, offering greater freedom to balance professional and personal life.

7.2. Negative Economic Effects:

- **Decrease in Tax Revenues:** A large number of individuals and businesses avoid paying taxes, negatively affecting the state's ability to finance development projects and public services.
- **Harm to the Formal Economy:** It creates unfair competition between organized and unorganized economic activities, as the latter operates without adhering to taxes or regulations, weakening formal businesses.
- **Low Quality of Goods and Services:** Due to the lack of strict oversight, low-quality products that do not meet required standards are widespread, harming consumers and reducing the competitiveness of national products.
- **Distortion of Economic Data:** It leads to inaccuracies in statistics related to unemployment, economic growth, and inflation, making economic planning less efficient.
- **Exploitation of Productive Resources:** The informal economy consumes human and material resources in an unorganized manner, leading to an unfair distribution of available resources and limiting the formal economy's ability to achieve sustainable growth.

- **Increased Government Budget Deficit:** It imposes an additional burden on the state's budget, as those working in the informal economy benefit from public services such as health and education without contributing financially.

7.3. Impact of the Informal Economy on Microeconomics:

- **Inequitable Income Distribution:** Workers in the informal economy enjoy untaxed profits, creating an economic gap between formal and informal workers, which increases social inequality.
- **Resource Shift to Unregulated Activities:** The lack of oversight causes a shift of financial and human resources toward the informal economy, reducing growth opportunities for formal enterprises.
- **Harm to Small and Medium Enterprises (SMEs):** Small businesses operating in the formal economy struggle to compete with their unregistered counterparts, which may lead to their decline or exit from the market.

7.4. Social Impacts:

- **Encouraging Youth to Avoid Formal Employment:** Due to the quick profits generated by the informal economy, many young people tend to avoid formal jobs, weakening the workforce in the formal sector.
- **Reinforcing Misconceptions About Economic Success:** The spread of informal work fosters a culture of evading legal and tax obligations, which negatively impacts work ethics within society.
- **Labor Market Instability:** It creates an unstable environment for workers who lack legal protections, making them vulnerable to exploitation and unfair working conditions.
- **Negative Impact on Prices:** The spread of the informal economy may lead to the monopolization of certain goods and services, contributing to market disruptions and price fluctuations.

The informal economy, despite some limited benefits, poses a real challenge to economic development as it hinders the state's efforts to achieve financial and regulatory stability and affects the fair distribution of resources. This necessitates finding effective solutions to integrate it into the formal system.

8. Methods of Measuring the Informal Economy:

As governments increasingly seek to regulate and formalize the informal economy, accurate measurement of its size is crucial for effective policy-making and resource allocation. Researchers have thus developed various methodologies to assess the scope and prevalence of this sector.

8.1. Direct Methods: These methods represent the initial attempts to measure and analyze the informal economy and are based on two main approaches.

8.1.1. Survey Method: This method relies on collecting survey data from a carefully selected sample, with estimates based on participants' voluntary responses. However, these responses are often characterized by hesitation and reservation, which limits the accuracy of the extracted information. Consequently, this approach requires a critical review to address potential discrepancies in the responses. It is notable for providing detailed information about the structure of informal economic activities and their employment patterns. Nevertheless, it necessitates large research teams due to the high number of targeted vendors and buyers, requires considerable time, and may be subject to data biases. (Zidan, 2022, p95)

The survey method is considered a means of collecting direct data from individuals and operators in the informal sector, thereby providing an accurate reflection of the structure of informal economic activities. Through this method, precise details such as employment patterns, economic activities, and targeted markets can be identified, which contributes to a deeper understanding of the nature of this sector. However, this approach faces several challenges. The responses provided by individuals are often reserved or ambiguous due to the fear of repercussions associated with disclosing illegal or unauthorized activities. Additionally, the samples used may suffer from unintended biases resulting from non-representative random selections of the entire informal sector. Moreover, this method requires a significant amount of time and extensive resources to cover a broadly representative sample, which may pose a practical obstacle. Despite these challenges, this approach remains useful in obtaining partial insights into the structure of the informal sector, even though its results are often imprecise due to hesitancy in responses and the difficulty of securing a fully representative sample.

8.1.2. Tax Audit Method: This method relies on reviewing the tax reports of a randomly selected sample of taxpayers with the aim of detecting the extent of tax evasion, after which the results are generalized to the national level. Its advantage lies in its ability to provide accurate estimates of the size of hidden income. However, this method may face difficulties in detecting certain informal activities, such as commodity smuggling, which can affect the accuracy of the measurements. Feige (1989) utilized this approach in the United States to measure the informal economy. (Mustafa,, Ayman , & Doaa , 2021, p106-107)

The tax audit method is regarded as an effective tool for estimating the size of hidden income and detecting illicit economic activities. This approach relies on the analysis of actual data from tax reports, which provides it with the advantage of precision in measurement. With these data, it is

possible to identify economic activities that are unlawfully concealed, thereby offering a reliable indicator of the informal economy's scale.

However, a notable limitation of this method is its potential inability to detect certain informal activities, such as smuggling operations, which can compromise the accuracy of the results. Furthermore, the method is heavily dependent on the availability and regulation of tax data—a factor that may not be present in some developing countries.

Overall, the tax audit method can be considered moderately effective in determining the true size of the informal economy, particularly when comprehensive and accessible tax data are available.

8.2. Indirect Methods: These methods rely on the analysis of macroeconomic data to indirectly estimate the size of the informal economy. Among the most important of these methods are...

8.2.1. National Accounts Statistics: This approach is based on measuring the gap between income and expenditure statistics in the national accounts, under the assumption that a portion of unreported income will eventually be reflected in expenditure. Consequently, this gap can serve as an indicator of the size of the informal economy. However, the accuracy of these estimates is influenced by potential errors in the national output accounts. (Mohamed Khairy, 2022, p100)

National accounts statistics are considered a valuable tool for estimating the size of the informal economy, as they rely on comprehensive and readily available data from national accounts. This method is based on analyzing the gap between income and expenditure, with a significant gap serving as an indication of the presence of an informal economy. By utilizing extensive data from national accounts, this approach allows for the estimation of the income-expenditure gap as an indicator of the informal economy and can also be used to measure the economic disparity between formal and informal activities on a large scale.

However, errors in calculating GDP may lead to inaccurate estimates, and it is challenging to determine the extent to which informal activities influence the gap between income and expenditure. Additionally, this method cannot be used to precisely identify specific informal economic sectors.

Overall, while the effectiveness of this method in determining the exact size of the informal economy is limited, it serves as a useful estimation tool based on macroeconomic data. It can be employed as an auxiliary means to understand the size and scope of the informal economy, but it should be used in conjunction with other methods to achieve a more accurate picture.

8.2.2. Labor Force Statistics: This method is more widely used in developed countries, as it relies on comparing the officially registered labor force participation rates with the actual rates. It is based on the assumption that the labor force participation rate remains relatively constant, allowing the gap to be used as an estimate of the size of informal employment. However, this method faces challenges such as excluding unreported capital income and neglecting the issue of multiple job holdings. (Maatouq, 2012, p92)

Labor force statistics are an important tool for estimating the size of the informal economy, as they provide estimates regarding the extent of labor participation in informal activities, which can help determine the scale of informal employment. This method is common in developed countries where organized labor force data is available. However, it faces challenges, such as the difficulty in measuring unreported capital income and the failure to account for unregistered workers who may hold multiple jobs. Overall, this method is effective in countries that possess advanced labor force data, but it may be limited in nations that lack an official database or where informal activity is on the rise.

8.2.3. The Monetary Approach: This method is based on the assumption that most informal economic transactions are conducted in cash, and therefore, analyzing the demand for liquid money can help estimate the size of the informal economy. This approach involves measuring the ratio of liquid cash to demand deposits, analyzing cash transactions, and examining the use of high-denomination currency notes. However, this approach faces criticisms, including the difficulty of asserting that all informal transactions are conducted in cash, and the possibility that an increase in demand for cash might result from factors other than the growth of the informal economy. (Miftah & Abdel Karim , 2013, p197)

The monetary approach is considered one of the methods used to estimate the size of the informal economy, as it is based on the primary assumption that most informal economic transactions are conducted in cash. This assumption makes it possible to measure the size of this economy by analyzing the demand for liquid money. One of the advantages of this approach is its ability to indirectly identify informal activities by observing an increase in the demand for currency, which provides an indicator of the magnitude of the shadow economy. However, this method is not without its shortcomings, as it cannot be definitively assumed that all informal transactions are conducted in cash—especially given the rise of digital markets and the use of non-cash payment channels. In addition, factors such as inflation or changes in monetary policy may influence the demand for cash, thereby complicating the measurement process. Despite these challenges, the monetary approach remains relatively effective in estimating the size of the informal economy, although its accuracy may be affected by multiple external factors that make it difficult to determine the actual size with high precision.

8.2.4. Electricity Consumption: Kaliberda and Kaufman (1996) suggest that electricity consumption serves as a reliable material indicator of both formal and informal economic activity. Based on this, the informal economy can be estimated by examining the difference between the growth in electricity consumption and the formal growth of GDP. However, this method has some drawbacks, such as the fact that not all informal economic activities rely on electricity, and the relationship between electricity consumption and economic activity varies across countries and over different time periods. (Hasain & Sahed, 2020, p419)

Electricity consumption measurement is considered one of the methods used to estimate the size of the informal economy, as it serves as a tangible indicator that can be easily tracked using available

electricity consumption data. One of the advantages of this method is that it provides an overall perspective on the level of economic activity by comparing the growth in electricity consumption with GDP, which may indicate the presence of informal economic activity. However, this method faces certain shortcomings, as not all informal activities rely heavily on electricity, potentially leading to measurement inaccuracies. Additionally, the relationship between electricity consumption and economic activity can vary across countries and over different time periods, making it difficult to generalize the results. Despite these limitations, this approach remains relatively effective in some contexts, although its applicability may be limited in countries or sectors where electricity consumption is not a precise indicator of informal economic activity.

8.2.5. Using Models in Measuring the Informal Economy: The Multiple Indicators and Multiple Causes (MIMIC) model is a modern approach to measuring the informal economy. This latent variable model analyzes statistical relationships between unobservable (latent) variables and measurable (observable) variables.

This approach relies on two types of equations: (Kamal, 2020, p164)

- **Structural Equation:** This equation links the size of the informal economy as a dependent variable to a set of influencing factors such as the tax burden, inflation, labor force, individuals' real income, and regulatory frameworks.
- **Measurement Equations:** These equations relate the informal economy, treated as an independent variable, to measurable economic indicators, such as real GDP and the increase in the demand for currency.

The MIMIC (Multiple Indicators and Multiple Causes) model is a sophisticated tool for estimating the size of the informal economy. By analyzing complex relationships between influencing variables like tax burden, inflation, labor force, and income, it provides relatively accurate estimates. Furthermore, it allows for a comprehensive analysis of the interconnections between these factors, offering valuable insights into the nature of the informal economy.

While the MIMIC model is a powerful tool for estimating the informal economy, it has limitations. It requires high-quality data and advanced analytical skills. Furthermore, its reliance on assumptions can impact accuracy if those assumptions don't hold true in a specific context. Despite these challenges, the MIMIC model remains a valuable approach, particularly when sufficient data and appropriate conditions are present, offering accurate results based on multi-indicator analysis..

Direct methods provide accurate data but often suffer from issues related to participants' reluctance and bias in their responses. In contrast, indirect methods yield less precise estimates but rely on more readily available data, such as national statistics or electricity consumption analysis. Advanced models like MIMIC demonstrate considerable effectiveness in delivering accurate estimates, although they require precise statistical data and complex analytical procedures.

9. Conclusion:

The informal economy is a complex economic phenomenon with profound effects on the structure of the macroeconomy, necessitating precise measurement tools to understand its size, motivations, and implications. Research has shown a disparity in the methods used to estimate the size of this sector, with the accuracy of results varying depending on the adopted methodology and the availability of data. While indirect methods provide approximate estimates, advanced economic models such as MIMIC have proven effective in offering a more accurate and comprehensive analysis. However, there remains an urgent need to develop more integrated measurement mechanisms that take into account the economic specificities of each country, contributing to the formulation of effective policies for integrating the informal sector into the formal economy. The study also revealed that the informal economy is not merely a marginal sector but rather constitutes a significant part of economic activity, especially in developing countries, necessitating the adoption of more comprehensive strategies to integrate it and harness its potential for achieving sustainable development..

9.1. Study Results

- The informal economy includes all economic activities that take place outside legal and formal frameworks, and are not subject to taxes or government regulations. It is characterized by its great diversity, encompassing individual activities, small businesses, and various forms of unregistered employment.
- The informal economy contributes to providing ample job opportunities, especially for the poor, and helps to improve living standards by empowering individuals economically.
- The informal economy has negative effects as it leads to the state losing significant tax revenues, reduces the effectiveness of macroeconomic policies, and may hinder the application of quality and consumer protection standards.
- The informal economy affects productivity. Although it provides job opportunities, most informal businesses suffer from low productivity due to the lack of innovation and institutional development.
- The formal economy is subject to legal regulations and pays taxes, while the informal economy operates outside these frameworks.
- The formal economy enjoys legal protection and social security for its workers, while workers in the informal sector lack these privileges.
- The informal economy constitutes a large part of economic activity in many countries, especially in developing countries, making it an influential factor in economic growth.
- The accuracy of measuring the informal economy varies depending on the methodology used. Direct methods provide more realistic data but are affected by conservatism and bias, while indirect methods provide approximate estimates based on macroeconomic indicators.

- The MIMIC latent variable model has demonstrated its effectiveness in providing relatively accurate estimates of the informal economy's size; however, it requires high-quality statistical data and advanced analytical techniques.
- Monetary measurement and electricity consumption: Despite the use of the monetary approach and the analysis of electricity consumption as indirect tools, their effectiveness varies depending on the economic structure of countries.
- Data availability represents a major challenge in measuring the informal economy, which calls for the development of more accurate and comprehensive statistical systems.

9.2. Recommendations

- **Strengthening Statistical Systems:** Develop more accurate tools and methodologies to measure the informal economy, including the use of big data and modern technology.
- **Using a Multi-Dimensional Approach:** Combining direct and indirect methods in measuring the size of the informal economy helps achieve more accurate and reliable estimates.
- **Developing Integration Policies:** Simplify administrative and tax procedures to encourage informal institutions to integrate into the formal sector.
- **Promoting Financial Awareness:** Provide awareness and training programs on the benefits of integrating into the formal economy, especially for owners of small and medium-sized enterprises.
- **Encouraging Digital Transformation:** Support the use of electronic payments and digital commerce as a tool to reduce the informal economy and promote economic transparency.
- **Amending Legal Frameworks:** Updating legislation to create a more flexible environment for small businesses can incentivize their transition from the informal to the formal economy.

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